

**SOUTH CAROLINA
DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
AIR POLLUTION CONTROL REGULATIONS AND STANDARDS**

**REGULATION 61-62.5
AIR POLLUTION CONTROL STANDARDS**

**STANDARD NO. 1
EMISSIONS FROM FUEL BURNING OPERATIONS**

SECTION I - VISIBLE EMISSIONS

A. Existing Sources

No one shall discharge to the ambient air from any existing source constructed prior to February 11, 1971, smoke which exceeds an opacity of forty (40) percent. The forty (40) percent opacity limit may be exceeded for soot blowing, but may not be exceeded for more than six (6) minutes in a one hour period nor be exceeded for more than a total of twenty-four (24) minutes in a twenty-four (24) hour period. Emissions caused by soot blowing shall not exceed sixty (60) percent.

B. New Sources

No one shall discharge to the ambient air from any source constructed on or after February 11, 1971, smoke which exceeds an opacity of twenty (20) percent. The twenty (20) percent opacity limit may be exceeded for soot blowing, but may not be exceeded for more than six (6) minutes in a one hour period nor be exceeded for more than a total of twenty-four (24) minutes in a twenty-four (24) hour period. Emissions caused by soot blowing shall not exceed sixty (60) percent.

C. Special Provisions

The opacity standards set forth above do not apply during startup or shutdown. Owners and operators shall, to the extent practicable, maintain and operate any source including associated air pollution control equipment in a manner consistent with good air pollution control practices for minimizing emissions. In addition, the owner or operator shall maintain a log of the time, magnitude, duration and any other pertinent information to determine periods of startup and shutdown and make available to the Department upon request.

D. Test Method

The method which is approved by the Department for determining compliance with opacity limitations under this Section is EPA Reference Method 9 (40 CFR 60, Appendix A, as revised July 1, 1986). Alternate methods may be utilized only if approved in advance by the Department and by the Environmental Protection Agency.

SECTION II - PARTICULATE MATTER EMISSIONS

A. Allowable Discharge

The allowable discharge of particulate matter resulting from fuel burning operations shall be limited to

the values obtained by use of Figure 1 and/or Part B. (For the purpose of determining heat input, total equipment capacity refers to total equipment capacity discharging through each stack. If a boiler has more than one (1) stack the total rated capacity will be the boiler rated capacity discharging to these stacks). Interpolation of Figure 1 for fuel burning operations of 1300 million BTU per hour heat input and larger shall be accomplished by use of the equation:

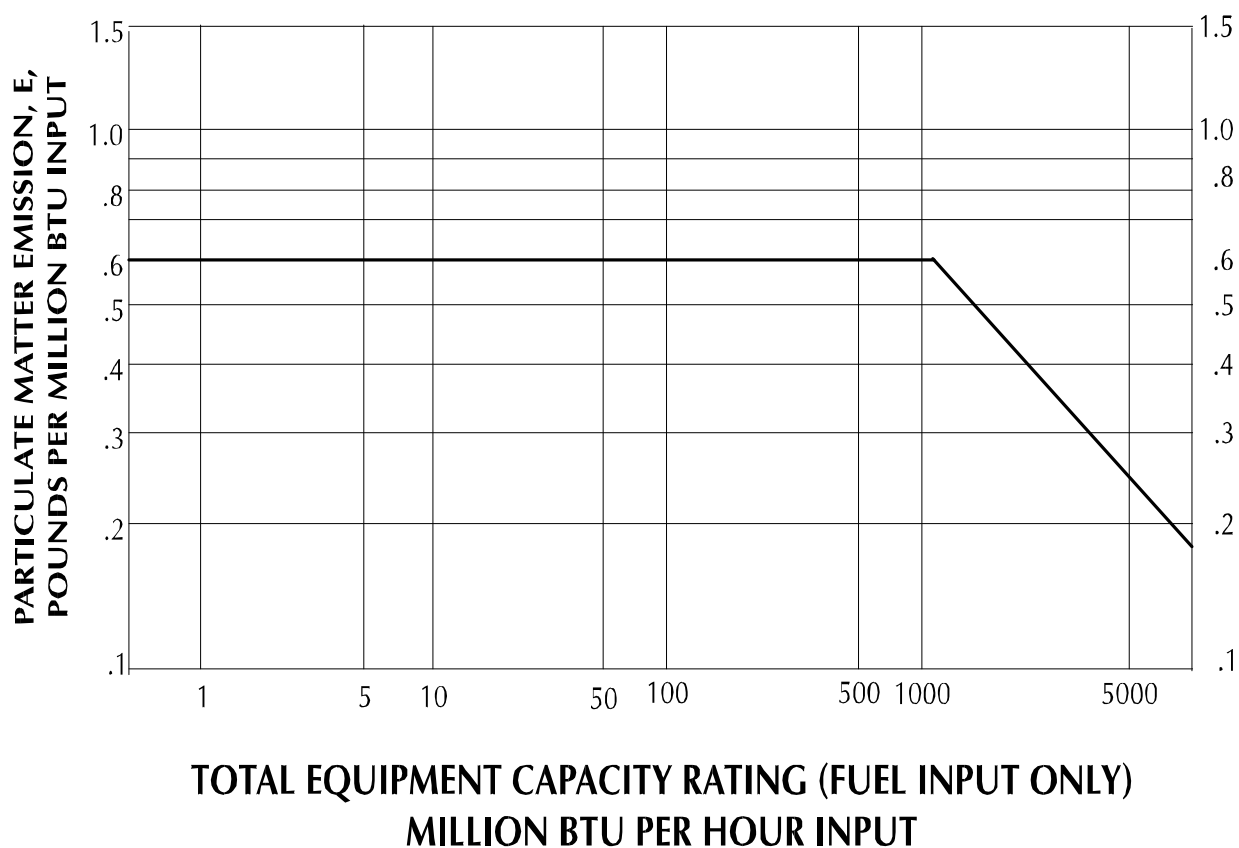
$$E = 57.84 P^{-0.637}$$

where E = the allowable emission rate in pounds per million BTU heat input,
and P = million BTU heat input per hour

B. Special Provisions

All fuel burning operations of 10 million BTU per hour heat input and smaller constructed prior to February 11, 1971 shall be allowed 0.8 pounds per million BTU input.

Figure 1



SECTION III - SULFUR DIOXIDE EMISSIONS

A. General

The maximum allowable discharge of sulfur dioxide (SO₂) from fuel burning operations shall be in accordance with a system of priorities as specified hereinafter in paragraph B. The classifications shall be delineated on a county basis. The maximum allowable discharge for the various classes is specified in paragraph C of this Section.

B. Classifications

1. The class into which a given county falls has been determined by mathematical atmospheric diffusion models and other methods which evaluate those factors which necessitate limits on sulfur dioxide emissions. These factors included but were not limited to: (1) total sulfur dioxide emissions; (2) spatial distribution of sulfur dioxide sources; (3) effects of single, large sources; (4) existing, measured air quality; (5) topographical features of the county; (6) contributions to background levels due to sources outside the county being considered; (7) population density.

2. The assigned classifications will be reviewed periodically at intervals not to exceed three years, and changes will be made as required. When a county is assigned to a more restrictive class, individual compliance schedules will be established in such a way that reasonable time will be allowed for the sources to make necessary changes in equipment and/or fuel contracts.

3. The following classifications are assigned:

Class I - Charleston County

Class II - Aiken County; Anderson County

Class III - All others

C. Allowable Discharges

Sulfur dioxide emissions from fuel burning sources located in various counties will not exceed the following limits:

1. Counties in Class I

Rated Source Size	Maximum Allowable Emissions (lb SO ₂ /million BTU input)
Up to and including 10 million BTU/hr	3.5
Greater than 10 million BTU/hr	2.3

2. Counties in Class II

Rated Source Size	Maximum Allowable Emissions (lb SO ₂ /million BTU input)
Up to 1000 million BTU/hr	3.5
1000 million BTU/hr and larger	2.3

3. Counties in Class III

Rated Source Size	Maximum Allowable Emissions (lb SO ₂ /million BTU input)
All	3.5

D. Special Provisions

If it can be demonstrated to the satisfaction of the Board that ambient air standards will not be contravened by a source, alone or in combination with other sources, a greater allowance for sulfur dioxide discharges may be made on a case-by-case basis.

SECTION IV - OPACITY MONITORING REQUIREMENTS

A. Applicable Sources

1. Fossil Fuel Fired Boilers

The owner or operator of any fossil fuel-fired steam generator of more than 250 million BTU per hour heat input capacity shall install, calibrate, operate, and maintain no later than June 14, 1978, continuous monitoring system(s) for the measurement of opacity which meets the performance specifications of Paragraph D of this Section except where:

- a. Gaseous fuel is the only fuel burned;
- b. Oil or a mixture of gas and oil are the only fuels burned and the steam generator is able to comply with the provisions of Sections I and II of this Standard without utilization of particulate matter collection equipment, and where the steam generator has never been found, through any administrative or judicial proceedings, to be in violation of Section I of this Standard.
- c. The steam generator operates with an annual average capacity factor of 30 percent or less, as reported to the Federal Power Commission for calendar year 1974 or otherwise adequately demonstrated to the Department; and has not subsequently increased this factor to more than 30 percent.

2. Woodwaste Boilers

The owner or operator of any woodwaste boiler, not equipped with a wet scrubber, will be required to install, calibrate, operate and maintain continuous monitoring system(s) approved by this Department for the measurement of opacity, if it meets one or more of the following criteria:

- a. Any woodwaste boiler of at least 100×10^6 BTU/hr. rated heat input.
- b. Any woodwaste boiler, regardless of size, that has been operating in non-compliance with any applicable state air pollution control regulations and standards.

If a boiler is fired on more than one fuel, the total capacity will determine the applicability of above requirements.

B. Continuous Opacity Monitor Reporting Requirements

1. The owner or operator of any fossil fuel-fired steam generator subject to the provisions of Paragraph A of this Section shall submit a written Continuous Opacity Monitor report to the Department quarterly or more often if requested. All quarterly reports must be postmarked by the 30th day following the end of each calendar quarter.

The report shall include the following minimum information:

a. All integrated six minute opacity measurements for periods during which the applicable provisions of Section I have been exceeded, together with their nature and cause.

b. For periods of monitoring system malfunction:

(i) The date and time identifying each period during which the monitoring system was inoperative, except for zero and span checks.

(ii) The nature of monitoring system repairs or adjustments.

(iii) Proof of opacity monitoring system performance may be required by the Department whenever repairs or adjustments have been made.

c. Boiler system repairs or adjustments made to correct violations of the provisions of Section I.

If no reportable incidents occur during a quarter, a report is also required indicating as such.

2. Alternative data reporting procedures may be allowed if the owner or operator shows, to the satisfaction of the Department, that these procedures are at least as accurate as those described.

3. The owner or operator shall maintain a file of all information contained in the quarterly reports, calibration data for the opacity monitoring system(s), relevant records of adjustments and maintenance performed on such system(s), and all other data generated by the continuous opacity monitoring system(s), for a minimum of two years from the date of submission of such reports or collection of such data. The information contained on file must be made available for review by Department personnel upon request.

C. Exemption from Reporting Requirements

A temporary exemption from the opacity monitoring and reporting requirements of this Section may be granted during any period of monitoring system(s) malfunction, provided the owner or operator shows, to the satisfaction of the Department, that the malfunction was unavoidable and is being repaired as expeditiously as possible.

D. Equipment Performance Specifications

The continuous opacity monitoring system(s) required by Paragraph A.1. of this Section (for fossil fuel fired steam generators) shall conform with the performance specifications set forth in 40 CFR, Part 60, Appendix B, Performance Specification 1 as revised July 1, 1986 which is incorporated by reference as a part of this Standard except that where the term "Administrator" is used the term "Department" shall be substituted. In addition, the opacity monitoring system(s) shall complete a minimum of one cycle of operation for each successive 10-second period; be installed such that representative measurements of

opacity from the affected steam generator are obtained; and have an instrument span of approximately 80 percent opacity.

The owner or operator shall record the zero and span drift in accordance with method prescribed by the manufacturer of such opacity monitoring system(s); subject the system(s) to the manufacturer's recommended zero and span check at least once daily unless the manufacturer has recommended adjustments at shorter intervals, in which case such recommendations shall be followed; adjust the zero and span whenever the 24-hour zero drift or 24-hour calibration drift limits of 40 CFR, Part 60, Appendix B, Performance Specification 1 as revised July 1, 1986 are exceeded; adjust the opacity monitoring system(s) purchased prior to September 11, 1974, whenever the 24-hour zero drift or 24-hour calibration drift exceeds 4 percent opacity for those generators constructed prior to February 11, 1971 and 2 percent opacity for those generators constructed after February 11, 1971.

The monitoring systems must be approved by this agency prior to installation.

E. Monitor Location

When the effluents from two or more affected steam generators of similar design and operating characteristics are combined before released to the atmosphere, the opacity monitoring system(s) shall be installed on the combined effluent. When the affected steam generators are not of similar design and operating characteristics, or when the effluent from one affected steam generator is released to the atmosphere through more than one point, the owner or operator shall apply for an alternate procedure to comply with the requirements of this Section.

F. Exemptions from Monitoring Requirements

Whenever the requirements for continuous opacity monitoring cannot be implemented by the owner or operator due to physical plant limitations, extreme economic burden, or infrequent steam generator operation of less than 30 days per year, or when the specified monitoring procedure would not provide accurate opacity determinations, alternate monitoring and reporting requirements may be approved on a case by case basis provided the owner or operator submits a written request to the Department which includes, but is not limited to:

1. The basis or reason(s) that alternate requirements are necessary;
2. A proposal of the alternate monitoring and reporting requirements; and,
3. Any other information needed by the Department to make a determination that the alternate requirements are adequate to meet the intent of this Section.

SECTION V - EXEMPTIONS

The following sources shall be exempt from the provisions of this standard:

A. Residences of four families or less.

B. Ocean-going vessels actually engaged in the physical process of national or international trade or defense.

SECTION VI - PERIODIC TESTING

An owner or operator of any source listed below shall ensure that scheduled periodic tests for particulate matter emissions are conducted every two years or as required by permit conditions and are performed in accordance with the provisions of R.61-62.1, Section IV, Source Tests. An owner or operator shall demonstrate compliance with sulfur dioxide emissions by source testing, continuous monitoring, or fuel analysis as required by permit conditions.

A. Oil-fired boilers greater than 250×10^6 BTU/hr. rated input.

B. Coal-fired boilers greater than 50×10^6 BTU/hr. rated input.

C. Woodwaste, or combination woodwaste boilers greater than 20×10^6 BTU/hr. rated input.

SECTION VII - [RESERVED]

R. 61-62.5, Standard No. 1 History - *South Carolina State Register*:

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